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(71) *Applicants (for all designated States except US): UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL [US/US]; 308 Bynum Hall, Campus Box 4105, Chapel Hill, NC 27599-4105 (US). THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS [US/US]; 354 Henry Administration Building, 506 South Wright Street, Urbana, IL 61801 (US).*

(71) Applicants and

(72) Inventors: XIA, Guoqing [CN/DE]; Friedensallee 78, 22765 Hamburg (DE). MALMSTROM, Anders [SE/SE]; Vapenkroken 19, Lund S-22647 (SE).

(72) Inventors; and

(75) **Inventors/Applicants (for US only): LIU, Jian [US/US]; 106 Ivy Brook Lane, Chapel Hill, NC 27516 (US). CHEN, Jinghua [CN/US]; 1105 Highway 54 Bypass, Kingswood, Apartment Q-7, Chapel Hill, NC 27516 (US). DUNCAN, Michael, B. [US/US]; 350 Summerwalk Circle, Chapel Hill, NC 27517 (US). SHUKLA, Deepak [IN/US]; 8339 Kimball Avenue, Skokie, IL 60076 (US). TIWARI, Vaibhav [IN/US]; 936 South Bell Avenue, Apartment #2R Rear, Chicago, IL 60612 (US).**

(74) Agent: **TAYLOR, Arles, A., Jr.**; University Tower, Suite 1400, 3100 Tower Boulevard, Durham, NC 27707 (US).

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(54) Title: PURIFIED AND ISOLATED HEPARAN SULFATE 3-O-SULFOTRANSFERASE ISOFORM 5 NUCLEIC ACIDS AND POLYPEPTIDES AND THERAPEUTIC AND SCREENING METHODS USING SAME

WO 2004/005475 A2

(57) Abstract: 3-OST-5 proteins, and nucleic acid molecules encoding the same. Recombinant host cells, recombinant nucleic acids and recombinant proteins are also disclosed, along with methods of producing each. Isolated and purified antibodies to 3-OST-5 homologs, and methods of producing the same, are also disclosed. 3OST-5 gene products have biological activity in specific heparan sulfate 3-*O*-sulfotransferase reactions. These reactions provide unique modified heparan sulfate. Thus, therapeutic methods involving this activity are also disclosed.



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